

000# 196

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132  
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

(425) 420-9200 FAX 420-9210  
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(541) 383-9310 FAX 382-7588

# CHAIN OF CUSTODY REPORT

Work Order #: BIG0650 PIG1016

## TURNAROUND REQUEST in Business Days\*

Organic & Inorganic Analyses

10 7 5 4 3 2 1 <1

STD.

Petroleum Hydrocarbon Analyses

5 4 3 2 1 <1

STD.

Please Specify

OTHER

\*Turnaround Requests less than standard may incur Rush Charges.

CLIENT: BRISTOL		INVOICE TO: BRISTOL													
REPORT TO: ANNE KRANAWETTER															
ADDRESS: AMCHITKA, AK		P.O. NUMBER: 21090													
PHONE: 907-770-0974 FAX: 770-0975															
PROJECT NAME: AMCHITKA		REQUESTED ANALYSES													
PROJECT NUMBER: 21090															
SAMPLED BY: Kyle / Anne															
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PER TABLE 1	METALS	Hydrocarbons EPA 8260	Alkalinity	Chloride	Sulfate	Turbidity	Nitrate-Nitrogen	Ammonia-Nitrogen	TKN	TOC	Total Dissolved Solids	Chemical Oxygen Demand	MBAS
1. 01AMMF08SW	7/27/01 1105	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. 01AMMF09SW	7/27/01 1005	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3. 01AMMF10SW	7/27/01 1005	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4. 01AMMF11SW	7/27/01 0925	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5. 01AMMF12SW	7/27/01 0945	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6. 01AMMF13SW	7/27/01 1125	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7. 01AMMF14SW	7/27/01 1135	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8. 01AMMF15SW	7/27/01 1205		X												
9.															
10.															
11.															
12.															
13.															
14.															
15.															

MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
W	KIP	01AMMF08SW	-01
W	KIP	10 containers	-02
W	KIP	10 containers	-03
W	KIP	10 containers	-04
W	KIP	10 containers	-05
W	KIP	10 containers	-06
W	KIP	10 containers	-07
			-08
		There are 10 containers for 01AMMF09SW	

RELINQUISHED BY: Kyle Petersen	DATE: 7/27/01	RECEIVED BY: [Signature]	DATE: 7-27-01
PRINT NAME: Kyle Petersen	FIRM: BRISTOL	PRINT NAME: [Signature]	FIRM: NCA
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE: 7-28-01
PRINT NAME:	FIRM:	PRINT NAME: [Signature]	FIRM: NCA
ADDITIONAL REMARKS: Monofill Samples - surface waters near the landfill		7/31/01 3:2	TEMP: 14.0 23
COC REV 3/99		1004 3:7	PAGE 1 OF 1



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
425.420.9210 fax 425.420.9210  
**Spokane** East 1111 Montgomery, Suite B, Spokane, WA 99206-4776  
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**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

8 October, 2001

Anne Kranawetter  
Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are **amended** results of analyses for samples received by the laboratory on 07/31/01 10:04. If you have any questions concerning this report, please feel free to contact me. These results supercede all previous results reported by the laboratory.

Sincerely,

Jerry Orlando  
Project Manager/QA

Work Orders included in this report:

**P1G1016**

Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter


**Amended Report**  
 Issued: 10/08/01 16:19

### ANALYTICAL REPORT FOR SAMPLES - Amended

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMMF08SW	P1G1016-01	Water	07/27/01 11:05	07/31/01 10:04
01AMMF09SW	P1G1016-02	Water	07/27/01 10:05	07/31/01 10:04
01AMMF10SW	P1G1016-03	Water	07/27/01 10:05	07/31/01 10:04
01AMMF11SW	P1G1016-04	Water	07/27/01 09:25	07/31/01 10:04
01AMMF12SW	P1G1016-05	Water	07/27/01 09:45	07/31/01 10:04
01AMMF13SW	P1G1016-06	Water	07/27/01 11:25	07/31/01 10:04
01AMMF14SW	P1G1016-07	Water	07/27/01 11:35	07/31/01 10:04
01AMMF15SW	P1G1016-08	Water	07/27/01 12:05	07/31/01 10:04

North Creek Analytical - Portland

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 Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc.  
 Environmental Laboratory Network Page 1 of 43

Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

## Total Metals per EPA 6000/7000 Series Methods

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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#### 01AMMF08SW (P1G1016-01) Water

Sampled: 07/27/01 Received: 07/31/01

Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/02/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.224</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Lead</b>	<b>0.00159</b>	0.00100	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Magnesium</b>	<b>2.21</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.0233</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>2.28</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00190</b>	0.00100	"	"	EPA 6020	08/01/01	08/02/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>16.8</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/02/01	1080883	


#### 01AMMF09SW (P1G1016-02) Water

Sampled: 07/27/01 Received: 07/31/01

Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.652</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Lead	ND	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>2.91</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.0298</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
Potassium	ND	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00137</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>23.1</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	

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 Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc.  
 Environmental Laboratory Network

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**01AMMF10SW (P1G1016-03) Water**

Sampled: 07/27/01 Received: 07/31/01

Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.595</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Lead	ND	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>2.99</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.0539</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>1.16</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00180</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>23.9</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	


**01AMMF11SW (P1G1016-04) Water**

Sampled: 07/27/01 Received: 07/31/01

Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
<b>Copper</b>	<b>0.00202</b>	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.531</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Lead	ND	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>3.12</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.0184</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>1.21</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00163</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>22.9</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network** Page 3 of 43

Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

## Total Metals per EPA 6000/7000 Series Methods

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
<b>Copper</b>	<b>0.00202</b>	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.552</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Lead	ND	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>3.17</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Manganese	ND	0.0194	"	9.71	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>1.33</b>	1.00	"	1	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00142</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>23.5</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	

<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
<b>Copper</b>	<b>0.00464</b>	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.707</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Lead</b>	<b>0.00711</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>1.68</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.00720</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>1.33</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00134</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>15.3</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Zinc	ND	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Arsenic	ND	0.00100	mg/l	1	EPA 6020	08/01/01	08/03/01	1080883	
Barium	ND	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
<b>Copper</b>	<b>0.00215</b>	0.00200	"	"	"	"	"	"	
<b>Iron</b>	<b>0.532</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
Lead	ND	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
<b>Magnesium</b>	<b>3.18</b>	0.100	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Manganese</b>	<b>0.0104</b>	0.00200	"	"	EPA 6020	08/01/01	08/02/01	1080883	
<b>Potassium</b>	<b>1.21</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Selenium</b>	<b>0.00105</b>	0.00100	"	"	EPA 6020	08/01/01	08/03/01	1080883	
Silver	ND	0.00100	"	"	"	"	"	"	
<b>Sodium</b>	<b>21.8</b>	1.00	"	"	EPA 6010A	08/13/01	08/15/01	1081293	
<b>Zinc</b>	<b>0.00786</b>	0.00500	"	"	EPA 6020	08/01/01	08/03/01	1080883	

North Creek Analytical - Portland

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**Environmental Laboratory Network** Page 5 of 43

Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Mercury by EPA Method 1631**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000250	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000150	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF10SW (P1G1016-03) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000200	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF11SW (P1G1016-04) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000212	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000188	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000200	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Mercury	0.0000188	0.0000100	mg/l	1	EPA 1631	08/07/01	08/09/01	1081079	

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**Environmental Laboratory Network**

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**Amended Report**  
Issued: 10/08/01 16:19


## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

  
Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	99.5 %	75-125							
Surr: 1,2-DCA-d4	88.5 %	75-125							
Surr: Dibromofluoromethane	104 %	75-125							
Surr: Toluene-d8	99.0 %	75-125							

North Creek Analytical - Portland

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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19


## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01	Received: 07/31/01		
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	104 %	75-125							
Surr: 1,2-DCA-d4	90.0 %	75-125							
Surr: Dibromofluoromethane	105 %	75-125							
Surr: Toluene-d8	100 %	75-125							

North Creek Analytical - Portland

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North Creek Analytical, Inc.  
Environmental Laboratory Network

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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#### 01AMMF10SW (P1G1016-03) Water

Sampled: 07/27/01 Received: 07/31/01

Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19


## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF10SW (P1G1016-03) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	105 %	75-125							
Surr: 1,2-DCA-d4	91.0 %	75-125							
Surr: Dibromofluoromethane	106 %	75-125							
Surr: Toluene-d8	102 %	75-125							

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc.  
Environmental Laboratory Network

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19


## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF11SW (P1G1016-04) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

 Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF11SW (PIG1016-04) Water</b>						Sampled: 07/27/01	Received: 07/31/01		
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	104 %	75-125							
Surr: 1,2-DCA-d4	88.5 %	75-125							
Surr: Dibromofluoromethane	106 %	75-125							
Surr: Toluene-d8	98.0 %	75-125							

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network** Page 14 of 43



Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF12SW (P1G1016-05) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	101 %	75-125							
Surr: 1,2-DCA-d4	88.5 %	75-125							
Surr: Dibromofluoromethane	106 %	75-125							
Surr: Toluene-d8	100 %	75-125							

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF13SW (P1G1016-06) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc.  
Environmental Laboratory Network Page 17 of 43

Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	100 %	75-125							
Surr: 1,2-DCA-d4	91.5 %	75-125							
Surr: Dibromofluoromethane	104 %	75-125							
Surr: Toluene-d8	99.0 %	75-125							

North Creek Analytical - Portland

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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Jerry Orlando, Project Manager/QA

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

## Volatile Organic Compounds per EPA Method 8260B

### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	105 %	75-125							
Surr: 1,2-DCA-d4	91.0 %	75-125							
Surr: Dibromofluoromethane	110 %	75-125							
Surr: Toluene-d8	102 %	75-125							

North Creek Analytical - Portland

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North Creek Analytical, Inc.  
Environmental Laboratory Network

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF15SW (P1G1016-08) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Acetone	ND	25.0	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
<b>Chloroform</b>	<b>1.06</b>	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**01AMMF15SW (P1G1016-08) Water**


Sampled: 07/27/01 Received: 07/31/01

Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	08/04/01	08/04/01	1081014	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
<b>Toluene</b>	<b>6.61</b>	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	

Surr: 4-BFB	102 %	75-125
Surr: 1,2-DCA-d4	92.0 %	75-125
Surr: Dibromofluoromethane	107 %	75-125
Surr: Toluene-d8	99.5 %	75-125

North Creek Analytical - Portland

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Conventional Chemistry Parameters per APHA/EPA Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	46.3	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	103	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	1.27	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	13.1	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	26.5	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	111	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	ND	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	8.59	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	
<b>01AMMF10SW (P1G1016-03) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	27.0	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	111	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	ND	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	8.27	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	
<b>01AMMF11SW (P1G1016-04) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	28.0	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	113	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	ND	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	9.06	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	

North Creek Analytical - Portland

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**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Conventional Chemistry Parameters per APHA/EPA Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	32.8	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	106	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	ND	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	8.73	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	
<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	43.1	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	96.0	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	0.678	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	11.2	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Ammonia-Nitrogen	ND	0.0500	mg/l	1	EPA 350.1	08/01/01	08/01/01	1080916	
Chemical Oxygen Demand	32.3	5.00	"	"	EPA 410.4	08/03/01	08/08/01	1080976	
Total Dissolved Solids	108	10.0	"	"	EPA 160.1	08/02/01	08/03/01	1080928	
Total Kjeldahl Nitrogen	0.505	0.500	"	"	EPA 351.2	08/01/01	08/02/01	1080886	
Total Organic Carbon	8.52	1.00	"	"	EPA 415.1	07/30/01	08/04/01	1071851	

North Creek Analytical - Portland

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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

 Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter


**Amended Report**  
 Issued: 10/08/01 16:19

### Anions per EPA Method 300.0

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	28.7	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	26.6	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF10SW (P1G1016-03) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	26.2	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF11SW (P1G1016-04) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	26.0	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	26.1	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	21.9	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Chloride	27.2	5.00	mg/l	10	EPA 300.0	08/06/01	08/07/01	1081066	
Sulfate	ND	10.0	"	"	"	"	"	"	

North Creek Analytical - Portland

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 Jerry Orlando, Project Manager/QA

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**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Total Alkalinity by Conventional Chemistry Parameters per APHA/EPA Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	ND	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF09SW (P1G1016-02) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	26.0	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF10SW (P1G1016-03) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	27.6	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF11SW (P1G1016-04) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	23.9	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF12SW (P1G1016-05) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	18.1	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF13SW (P1G1016-06) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	ND	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	
<b>01AMMF14SW (P1G1016-07) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Total Alkalinity	21.5	10.0	mg/L as CaCO <sub>3</sub>	1	EPA 310.1	08/03/01	08/04/01	1071866	

North Creek Analytical - Portland

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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter


**Amended Report**  
Issued: 10/08/01 16:19

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	0.0901	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	1.32	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF09SW (P1G1016-02) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	ND	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	1.15	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF10SW (P1G1016-03) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	0.0568	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	1.25	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF11SW (P1G1016-04) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	0.0509	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	2.32	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF12SW (P1G1016-05) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	ND	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	2.44	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF13SW (P1G1016-06) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	ND	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	1.06	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	
<b>01AMMF14SW (P1G1016-07) Water</b>					Sampled: 07/27/01 Received: 07/31/01				
Methylene Blue Active Substances	ND	0.0500	mg/l	1	EPA 425.1	07/29/01	07/29/01	1G30026	
Turbidity	1.28	1.00	NTU	"	EPA 180.1	07/28/01	07/28/01	1G31013	

North Creek Analytical - Portland

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Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter


**Amended Report**  
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**Anions by EPA Method 300.0**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMMF08SW (P1G1016-01) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF09SW (P1G1016-02) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF10SW (P1G1016-03) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF11SW (P1G1016-04) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF12SW (P1G1016-05) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF13SW (P1G1016-06) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	
<b>01AMMF14SW (P1G1016-07) Water</b>						Sampled: 07/27/01 Received: 07/31/01			
Nitrate-Nitrogen	ND	0.100	mg/L as N	1	EPA 300.0	07/28/01	07/28/01	1G31035	

North Creek Analytical - Portland

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Total Metals per EPA 6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1080883 - EPA 200/3005**

**Blank (1080883-BLK1)**

Prepared: 08/01/01 Analyzed: 08/02/01

Arsenic	ND	0.00100	mg/l
Barium	ND	0.00200	"
Cadmium	ND	0.00100	"
Chromium	ND	0.00100	"
Copper	ND	0.00200	"
Lead	ND	0.00100	"
Manganese	ND	0.00200	"
Selenium	ND	0.00100	"
Silver	ND	0.00100	"
Zinc	ND	0.00500	"

**LCS (1080883-BS1)**

Prepared: 08/01/01 Analyzed: 08/03/01

Arsenic	0.111	0.00100	mg/l	0.100	111	80-120
Barium	0.106	0.00200	"	0.100	106	80-120
Cadmium	0.107	0.00100	"	0.100	107	80-120
Chromium	0.108	0.00100	"	0.100	108	80-120
Copper	0.109	0.00200	"	0.100	109	80-120
Lead	0.104	0.00100	"	0.100	104	80-120
Manganese	0.102	0.00200	"	0.100	102	80-120
Selenium	0.118	0.00100	"	0.100	118	80-120
Silver	0.0526	0.00100	"	0.0500	105	80-120
Zinc	0.112	0.00500	"	0.100	112	80-120

**Duplicate (1080883-DUP1)**


Source: P1G1016-01

Prepared: 08/01/01 Analyzed: 08/03/01

Arsenic	ND	0.00100	mg/l	ND		20
Barium	ND	0.00200	"	ND	4.44	20
Cadmium	ND	0.00100	"	ND		20
Chromium	ND	0.00100	"	ND	12.7	20
Copper	ND	0.00200	"	ND	3.43	20
Lead	ND	0.00100	"	0.00159	153	20 Q-06
Manganese	0.0231	0.00200	"	0.0233	0.862	20
Selenium	0.00141	0.00100	"	0.00190	29.6	20 Q-06
Silver	ND	0.00100	"	ND	50.8	20 Q-06
Zinc	ND	0.00500	"	ND	80.5	20 Q-06

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541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

### Total Metals per EPA 6000/7000 Series Methods - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1080883 - EPA 200/3005

**Matrix Spike (1080883-MS1)** Source: P1G1016-01 Prepared: 08/01/01 Analyzed: 08/03/01

Arsenic	0.110	0.00100	mg/l	0.100	ND	110	75-125			
Barium	0.107	0.00200	"	0.100	ND	107	75-125			
Cadmium	0.108	0.00100	"	0.100	ND	108	75-125			
Chromium	0.110	0.00100	"	0.100	ND	109	75-125			
Copper	0.110	0.00200	"	0.100	ND	108	75-125			
Lead	0.102	0.00100	"	0.100	0.00159	100	75-125			
Manganese	0.127	0.00200	"	0.100	0.0233	104	75-125			
Selenium	0.113	0.00100	"	0.100	0.00190	111	75-125			
Silver	0.0515	0.00100	"	0.0500	ND	102	75-125			
Zinc	0.111	0.00500	"	0.100	ND	107	75-125			

**Matrix Spike (1080883-MS2)** Source: P1G1016-02 Prepared: 08/01/01 Analyzed: 08/03/01

Arsenic	0.112	0.00100	mg/l	0.100	ND	112	75-125			
Barium	0.108	0.00200	"	0.100	ND	108	75-125			
Cadmium	0.112	0.00100	"	0.100	ND	112	75-125			
Chromium	0.110	0.00100	"	0.100	ND	109	75-125			
Copper	0.110	0.00200	"	0.100	ND	109	75-125			
Lead	0.105	0.00100	"	0.100	ND	105	75-125			
Manganese	0.134	0.00200	"	0.100	0.0298	104	75-125			
Selenium	0.118	0.00100	"	0.100	0.00137	117	75-125			
Silver	0.0543	0.00100	"	0.0500	ND	108	75-125			
Zinc	0.111	0.00500	"	0.100	ND	109	75-125			

#### Batch 1081293 - EPA 200/3005

**Blank (1081293-BLK1)** Prepared: 08/13/01 Analyzed: 08/15/01

Iron	ND	0.100	mg/l
Magnesium	ND	0.100	"
Potassium	ND	1.00	"
Sodium	ND	1.00	"

North Creek Analytical - Portland

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Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

### Total Metals per EPA 6000/7000 Series Methods - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1081293 - EPA 200/3005

##### LCS (1081293-BS1)

Prepared: 08/13/01 Analyzed: 08/15/01

Iron	1.98	0.100	mg/l	2.00		99.0	90-110			
Magnesium	9.15	0.100	"	10.0		91.5	90-110			
Potassium	10.2	1.00	"	10.0		102	91.1-115			
Sodium	10.0	1.00	"	10.0		100	89.2-107			

##### Duplicate (1081293-DUP1)

Source: P1G1016-01

Prepared: 08/13/01 Analyzed: 08/15/01

Iron	0.218	0.100	mg/l		0.224			2.71	20	
Magnesium	2.26	0.100	"		2.21			2.24	20	
Potassium	2.07	1.00	"		2.28			9.66	20	
Sodium	17.0	1.00	"		16.8			1.18	20	

##### Matrix Spike (1081293-MS1)


Source: P1G1016-01

Prepared: 08/13/01 Analyzed: 08/15/01

Iron	2.28	0.100	mg/l	2.00	0.224	103	75-125			
Magnesium	12.2	0.100	"	10.0	2.21	99.9	75-125			
Potassium	12.4	1.00	"	10.0	2.28	101	75-125			
Sodium	27.5	1.00	"	10.0	16.8	107	75-125			

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Mercury by EPA Method 1631 - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1081079 - Metals**

**Blank (1081079-BLK1)**

Prepared: 08/07/01 Analyzed: 08/09/01

Mercury ND 0.0000100 mg/l

**LCS (1081079-BS1)**

Prepared: 08/07/01 Analyzed: 08/09/01

Mercury 0.000132 0.0000100 mg/l 0.000125 106 85-115

**Duplicate (1081079-DUP1)**

Source: P1G1016-03

Prepared: 08/07/01 Analyzed: 08/09/01

Mercury 0.0000212 0.0000100 mg/l 0.0000200 5.83 20

**Matrix Spike (1081079-MS1)**

Source: P1G1016-04

Prepared: 08/07/01 Analyzed: 08/09/01

Mercury 0.000161 0.0000100 mg/l 0.000125 0.0000212 112 75-125

**Matrix Spike (1081079-MS2)**


Source: P1H0044-01

Prepared: 08/07/01 Analyzed: 08/09/01

Mercury 0.000135 0.0000100 mg/l 0.000125 ND 107 75-125

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2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

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### Volatile Organic Compounds per EPA Method 8260B - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1081014 - EPA 5030B

##### Blank (1081014-BLK1)

Prepared & Analyzed: 08/04/01

Acetone	ND	25.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	5.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	5.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	10.0	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	5.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"

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Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

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Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1081014 - EPA 5030B**

**Blank (1081014-BLK1)**

Prepared & Analyzed: 08/04/01

cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	20.2		"	20.0		101	75-125			
Surr: 1,2-DCA-d4	17.7		"	20.0		88.5	75-125			
Surr: Dibromofluoromethane	21.1		"	20.0		106	75-125			
Surr: Toluene-d8	20.2		"	20.0		101	75-125			

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

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Issued: 10/08/01 16:19

**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1081014 - EPA 5030B**

**LCS (1081014-BS1)**

Prepared & Analyzed: 08/04/01

Benzene	20.5	1.00	ug/l	20.0		102	80-125			
Chlorobenzene	21.6	1.00	"	20.0		108	80-125			
1,1-Dichloroethene	19.3	1.00	"	20.0		96.5	70-135			
Toluene	21.0	1.00	"	20.0		105	80-125			
Trichloroethene	19.0	1.00	"	20.0		95.0	70-130			
Surr: 4-BFB	21.2		"	20.0		106	75-125			
Surr: 1,2-DCA-d4	18.2		"	20.0		91.0	75-125			
Surr: Dibromofluoromethane	21.6		"	20.0		108	75-125			
Surr: Toluene-d8	20.7		"	20.0		104	75-125			

**Matrix Spike (1081014-MS1)**

Source: P1G1016-02

Prepared & Analyzed: 08/04/01

Benzene	19.5	1.00	ug/l	20.0	ND	97.5	80-125			
Chlorobenzene	21.9	1.00	"	20.0	ND	110	80-125			
1,1-Dichloroethene	19.2	1.00	"	20.0	ND	96.0	70-135			
Toluene	19.9	1.00	"	20.0	ND	99.5	80-125			
Trichloroethene	18.6	1.00	"	20.0	ND	93.0	70-130			
Surr: 4-BFB	21.0		"	20.0		105	75-125			
Surr: 1,2-DCA-d4	18.0		"	20.0		90.0	75-125			
Surr: Dibromofluoromethane	21.2		"	20.0		106	75-125			
Surr: Toluene-d8	20.4		"	20.0		102	75-125			

**Matrix Spike Dup (1081014-MSD1)**

Source: P1G1016-02

Prepared & Analyzed: 08/04/01

Benzene	19.7	1.00	ug/l	20.0	ND	98.5	80-125	1.02	25	
Chlorobenzene	21.8	1.00	"	20.0	ND	109	80-125	0.458	25	
1,1-Dichloroethene	19.2	1.00	"	20.0	ND	96.0	70-135	0.00	25	
Toluene	20.0	1.00	"	20.0	ND	100	80-125	0.501	25	
Trichloroethene	18.4	1.00	"	20.0	ND	92.0	70-130	1.08	25	
Surr: 4-BFB	20.6		"	20.0		103	75-125			
Surr: 1,2-DCA-d4	17.7		"	20.0		88.5	75-125			
Surr: Dibromofluoromethane	21.1		"	20.0		106	75-125			
Surr: Toluene-d8	20.0		"	20.0		100	75-125			

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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

### Conventional Chemistry Parameters per APHA/EPA Methods - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1071851 - Wet Chem

##### Blank (1071851-BLK1)

Prepared: 07/30/01 Analyzed: 08/04/01

Total Organic Carbon ND 1.00 mg/l

##### LCS (1071851-BS1)

Prepared: 07/30/01 Analyzed: 08/04/01

Total Organic Carbon 18.9 1.00 mg/l 20.0 94.5 85-114

##### Duplicate (1071851-DUP1)

Source: P1G0914-02

Prepared: 07/30/01 Analyzed: 08/04/01

Total Organic Carbon 1.91 1.00 mg/l 1.89 1.05 20

##### Matrix Spike (1071851-MS1)

Source: P1G0914-02

Prepared: 07/30/01 Analyzed: 08/04/01

Total Organic Carbon 26.7 1.00 mg/l 25.0 1.89 99.2 70-130

#### Batch 1080886 - Wet Chem

##### Blank (1080886-BLK1)

Prepared: 08/01/01 Analyzed: 08/02/01

Total Kjeldahl Nitrogen ND 0.500 mg/l

##### LCS (1080886-BS1)

Prepared: 08/01/01 Analyzed: 08/02/01

Total Kjeldahl Nitrogen 9.99 0.500 mg/l 10.0 99.9 80-120

##### Duplicate (1080886-DUP1)

Source: P1G0998-01

Prepared: 08/01/01 Analyzed: 08/02/01

Total Kjeldahl Nitrogen ND 0.500 mg/l ND 20

##### Matrix Spike (1080886-MS1)

Source: P1G0998-01

Prepared: 08/01/01 Analyzed: 08/02/01

Total Kjeldahl Nitrogen 4.48 0.500 mg/l 5.00 ND 89.6 75-125

#### Batch 1080916 - Wet Chem

##### Blank (1080916-BLK1)

Prepared & Analyzed: 08/01/01

Ammonia-Nitrogen ND 0.0500 mg/l

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Bristol Environmental & Engineering  
 2000 W. International Airport Rd. #C-1  
 Anchorage, AK 99502-1116

Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

### Conventional Chemistry Parameters per APHA/EPA Methods - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1080916 - Wet Chem

##### LCS (1080916-BS1)

Prepared & Analyzed: 08/01/01

Ammonia-Nitrogen	2.03	0.0500	mg/l	2.00	102	85-115
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##### Duplicate (1080916-DUP1)

Source: P1G0913-02

Prepared & Analyzed: 08/01/01

Ammonia-Nitrogen	ND	0.0500	mg/l	ND		20
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##### Matrix Spike (1080916-MS1)

Source: P1G0913-02

Prepared & Analyzed: 08/01/01

Ammonia-Nitrogen	1.97	0.0500	mg/l	2.00	ND	98.5	75-125
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##### Matrix Spike Dup (1080916-MSD1)

Source: P1G0913-02

Prepared & Analyzed: 08/01/01

Ammonia-Nitrogen	1.99	0.0500	mg/l	2.00	ND	99.5	75-125	1.01	20
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#### Batch 1080928 - Wet Chem

##### Blank (1080928-BLK1)

Prepared: 08/02/01 Analyzed: 08/03/01

Total Dissolved Solids	ND	10.0	mg/l
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##### LCS (1080928-BS1)

Prepared: 08/02/01 Analyzed: 08/03/01

Total Dissolved Solids	104	10.0	mg/l	100	104	80-120
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##### Duplicate (1080928-DUP1)

Source: P1H0018-03

Prepared: 08/02/01 Analyzed: 08/03/01

Total Dissolved Solids	542	10.0	mg/l	546	0.735	20
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#### Batch 1080976 - Wet Chem

##### Blank (1080976-BLK1)

Prepared: 08/03/01 Analyzed: 08/08/01

Chemical Oxygen Demand	ND	5.00	mg/l
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Bristol Environmental & Engineering  
2000 W. International Airport Rd. #C-1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

**Conventional Chemistry Parameters per APHA/EPA Methods - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1080976 - Wet Chem**

**LCS (1080976-BS1)**

Prepared: 08/03/01 Analyzed: 08/08/01

Chemical Oxygen Demand	29.4	5.00	mg/l	30.0	98.0	75-125
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**Duplicate (1080976-DUP1)**

Source: P1G0953-01

Prepared: 08/03/01 Analyzed: 08/08/01

Chemical Oxygen Demand	24.6	5.00	mg/l	27.0	9.30	20
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Bristol Environmental & Engineering  
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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Amended Report**  
Issued: 10/08/01 16:19

### Anions per EPA Method 300.0 - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1081066 - Wet Chem

##### Blank (1081066-BLK1)

Prepared: 08/06/01 Analyzed: 08/07/01

Chloride	ND	0.500	mg/l							
Sulfate	ND	1.00	"							

##### LCS (1081066-BS1)

Prepared: 08/06/01 Analyzed: 08/07/01

Chloride	10.0	1.00	mg/l	10.0		100	85-115			
Sulfate	29.6	2.00	"	30.0		98.7	85-115			

##### Duplicate (1081066-DUP1)

Source: P1G1016-01

Prepared: 08/06/01 Analyzed: 08/07/01

Chloride	28.8	5.00	mg/l		28.7			0.348	20	
Sulfate	ND	10.0	"		ND			7.21	20	

##### Matrix Spike (1081066-MS1)

Source: P1G1016-01

Prepared: 08/06/01 Analyzed: 08/07/01

Chloride	52.0	5.56	mg/l	22.2	28.7	105	75-125			
Sulfate	43.6	5.56	"	44.4	ND	89.5	75-125			

##### Matrix Spike Dup (1081066-MSD1)


Source: P1G1016-01

Prepared: 08/06/01 Analyzed: 08/07/01

Chloride	51.9	5.56	mg/l	22.2	28.7	105	75-125	0.192	20	
Sulfate	43.4	5.56	"	44.4	ND	89.0	75-125	0.460	20	

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Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
 Issued: 10/08/01 16:19

### Total Alkalinity by Conventional Chemistry Parameters per APHA/EPA Methods - Quality Control

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1071866 - Aqueous Extraction</b>										
<b>Blank (1071866-BLK1)</b>				Prepared: 08/03/01 Analyzed: 08/04/01						
Total Alkalinity	ND	10.0	mg/L as CaCO <sub>3</sub>							
<b>LCS (1071866-BS1)</b>				Prepared: 08/03/01 Analyzed: 08/04/01						
Total Alkalinity	122	10.0	mg/L as CaCO <sub>3</sub>	125		97.6	85-115			
<b>Duplicate (1071866-DUP1)</b>				Source: P1G0837-01 Prepared: 08/03/01 Analyzed: 08/04/01						
Total Alkalinity	30.4	10.0	mg/L as CaCO <sub>3</sub>		23.6			25.2	20	Q-16

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Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

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### Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

#### North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1G30026 - General Preparation</b>										
<b>Blank (1G30026-BLK1)</b>				Prepared & Analyzed: 07/29/01						
Methylene Blue Active Substances	ND	0.0500	mg/l							
<b>LCS (1G30026-BS1)</b>				Prepared & Analyzed: 07/29/01						
Methylene Blue Active Substances	0.160	0.0500	mg/l	0.150		107	80-120			
<b>LCS Dup (1G30026-BSD1)</b>				Prepared & Analyzed: 07/29/01						
Methylene Blue Active Substances	0.159	0.0500	mg/l	0.150		106	80-120	0.627	20	
<b>Duplicate (1G30026-DUP1)</b>				Source: P1G1016-02 Prepared & Analyzed: 07/29/01						
Methylene Blue Active Substances	0.0645	0.0500	mg/l		ND			40.4	20	Q-06
<b>Matrix Spike (1G30026-MS1)</b>				Source: P1G1016-02 Prepared & Analyzed: 07/29/01						
Methylene Blue Active Substances	0.157	0.0500	mg/l	0.150	ND	76.1	80-120			Q-01
<b>Batch 1G31013 - General Preparation</b>										
<b>Blank (1G31013-BLK1)</b>				Prepared & Analyzed: 07/28/01						
Turbidity	ND	1.00	NTU							
<b>LCS (1G31013-BS1)</b>				Prepared & Analyzed: 07/28/01						
Turbidity	19.3	1.00	NTU	20.0		96.5	90-110			
<b>LCS Dup (1G31013-BSD1)</b>				Prepared & Analyzed: 07/28/01						
Turbidity	19.4	1.00	NTU	20.0		97.0	90-110	0.517	20	
<b>Duplicate (1G31013-DUP1)</b>				Source: P1G1016-07 Prepared & Analyzed: 07/28/01						
Turbidity	1.34	1.00	NTU		1.28			4.58	20	

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Project: Amchitka  
 Project Number: 21090  
 Project Manager: Anne Kranawetter

**Amended Report**  
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### Anions by EPA Method 300.0 - Quality Control

#### North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1G31035 - General Preparation

##### Blank (1G31035-BLK1)

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen ND 0.100 mg/L as N

##### LCS (1G31035-BS1)

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen 1.02 0.100 mg/L as N 1.00 102 90-110

##### LCS Dup (1G31035-BSD1)

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen 1.03 0.100 mg/L as N 1.00 103 90-110 0.976 20

##### Duplicate (1G31035-DUP1)

Source: B1G0622-02

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen ND 0.500 mg/L as N ND 25

##### Duplicate (1G31035-DUP2)

Source: P1G1016-01

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen ND 0.100 mg/L as N ND 25

##### Matrix Spike (1G31035-MS1)

Source: B1G0622-02

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen 5.08 0.500 mg/L as N 5.00 ND 102 60-130

##### Matrix Spike (1G31035-MS2)

Source: P1G1016-01

Prepared & Analyzed: 07/28/01

Nitrate-Nitrogen 1.04 0.100 mg/L as N 1.00 ND 104 60-130

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
**Amended Report**  
Issued: 10/08/01 16:19

### Notes and Definitions

- Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- Q-06 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
- Q-16 RPD is not applicable for analyte concentrations less than 5 times the MRL.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

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